

# WEST Search History

DATE: Tuesday, July 01, 2003

**Set Name Query**  
side by side

**Hit Count Set Name**  
result set

*DB=PGPB; PLUR=YES; OP=ADJ*

L10	L8 and l7	3	L10
L9	L8 and l6	22	L9
L8	extracellular matrix	3753	L8
L7	(dedifferentiated or de-differentiated) same (pancreatic or pancreas or duct or ductal or exocrine or exocrinal)	11	L7
L6	(dedifferentiat\$ or de-differentiat\$) same (pancreatic or pancreas or duct or ductal or exocrine or exocrinal)	74	L6

*DB=USPT; PLUR=YES; OP=ADJ*

L5	(dedifferentiat\$ or de-differentiat\$) same (pancreatic or pancreas or duct or ductal or exocrine or exocrinal)	30	L5
L4	de-differentiated same (pancreatic or pancreas or duct or ductal or exocrine or exocrinal)	4	L4
L3	dedifferentiated and (pancreatic or pancreas or duct or ductal or exocrine or exocrinal)	63	L3
L2	dedifferentiated same (pancreatic or pancreas or duct or ductal or exocrine or exocrinal)	0	L2

*DB=DWPI; PLUR=YES; OP=ADJ*

L1	dedifferentiated same (pancreatic or pancreas or duct or ductal or exocrine or exocrinal)	2	L1
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END OF SEARCH HISTORY

**WEST****End of Result Set**☐ **Generate Collection** **Print**

L5: Entry 30 of 30

File: USPT

Aug 6, 1974

DOCUMENT-IDENTIFIER: US 3827565 A  
TITLE: METHOD AND DEVICE OF ARTIFICIAL ENDOCRINE PANCREAS

**Brief Summary Text (9):**

The pancreatic islet cell layer can be prepared, if desired, by preparing an "instant" confluent or superconfluent mono-layer, using tissue culture techniques well known to those skilled in the art, on either membrane prior to their assembly into the trilaminate structure described and shown herein, from a fresh aqueous suspension of pancreatic islet cells, i.e., once dispersed cells. such suspension can be made by the method of S. Moskalewski, in Gen. Comp. Endoc. 5: 342 (1965) or the method of C. Hellerstrom (1964) Acta Endocrinol. 45:122 in combination with other tissue dissociation methods known to those skilled in the art such as that of A. Moscona. By the term "instant" it is meant that a membrane is treated with or placed in contact with a suspension of the living cells at a high concentration, and a mono-layer is then formed by cell attachment to the membrane, producing a confluent or superconfluent mono-layer promptly. A confluent mono-layer is a layer completely covering the membrane to a depth of one cell, but it will be understood that a minor portion of the surface of the membrane can be covered with a layer of more than one cell in depth; and in a super-confluent mono-layer, such covering is two or more cells in depth. These terms and procedures are well known in the art. If a confluent layer is produced in the usual fashion, starting with a suspension of 2.5 .times. 10.sup.5 cells per cc., of pancreatic islet cells, there occurs an undesirable change in the ratio of epithelial cells: fibroblast cells in the monolayer, from that found in vivo. Fibroblast cells selectively proliferate faster than epithelial cells. It is particularly advantageous, therefore, to employ a confluent or superconfluent mono-layer for two reasons: First, to allow for maximum treatment per surface area, and second, to discourage proliferation of fibroblasts as well as de-differentiation of epithelial cells. The depth of the pancreatic cell layer is advantageously the thickness of one cell layer, for optimum exchange with both the blood and the dialysate as well as for discouraging de-differentiation. However, it is not essential to employ a mono-layer, so long as the cell layer permits diffusion between the membranes as described herein. In place of normal pancreatic islet cells, one can also use benign insulinoma cells from a patient. A mono-layer of insulinoma cells can be formed from lower cell concentrations, e.g., of 5.10.sup.5 cells/cc., by conventional methods.

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L5: Entry 29 of 30

File: USPT

Mar 29, 1983

DOCUMENT-IDENTIFIER: US 4378016 A

TITLE: Artificial endocrine gland containing hormone-producing cells

Detailed Description Text (9):

A further preferred envelope configuration is set forth in FIGS. 4-6 and includes a flexible envelope collar 41 defining an open slot 42. The collar 41 has a first end 46 and is comprised of an inner membrane 43 and an outer membrane 44 which encase a substantially unicellular layer of live hormone-producing cells 45. A substantially unicellular layer i.e., a monolayer of live cells completely covering the membrane to a depth of one cell, is employed for two reasons: first to provide maximum surface area to volume ratio and second to discourage de-differentiation of the cells. Effective preparation of a insulin-producing monolayer comprising mostly Beta cells is disclosed by Chick et al., "Pancreatic Beta Cell Culture: Preparation of Purified Monolayers", Endo 96:637 (1975). Using techniques well known to those in the art, either the inner or outer membrane or both, are treated or placed in contact with the live cells until cell attachment forms a substantially unicellular layer on that surface. However, it is not essential that the cells be in a unicellular or monocellular layer as long as diffusion of nutrients and hormones is possible to and from the cells.